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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/933,883	08/20/2001	Samuel M. Cramer	112056-0004P1	6986

24267 7590 04/27/2004

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EXAMINER	
MANOSKEY, JOSEPH D	

ART UNIT	PAPER NUMBER
2113	7

DATE MAILED: 04/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/933,883	Applicant(s) CRAMER ET AL.	
	Examin r Joseph Manoskey	Art Unit 2113	

-- The MAILING DATE of this communication appears on the cover sh et with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 August 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☒ Claim(s) *7, 11, and 20* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 August 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *5 and 6*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The Examiner notes that there is a copending related application, Serial No. 09/933866. It is suggested, if required, that this should appear as the first sentence of the specification following the title, preferably as a separate paragraph unless it appears in an application data sheet. The status of nonprovisional copending related application(s) (whether patented or abandoned) should also be included.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: "154", "155", "158", and "159" of Fig. 1, "220" of Fig. 2, and "519" of Fig. 5. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claims 7, 11, and 20 objected to because of the following informalities:

Referring to claims 7 and 20, the claims recite "a first server to provide backup service to a second server", however the rest of the claim suggests that it should read, "a first server provided backup service by a second server".

Referring to claim 11, the claim recites "the first the first server", it is believed that the claim should read "the first server".

Appropriate correction is required.

Double Patenting

4. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

5. Claims 7-20 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 8-21 respectively of copending Application No. 09/933866. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

6. Claims 7-20 are directed to the same invention as that of claims 8-21 of commonly assigned copending Application No. 09/933866. The issue of priority under 35 U.S.C. 102(g) and possibly 35 U.S.C. 102(f) of this single invention must be resolved.

Since the U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP § 2302), the assignee is required to state which entity is the prior inventor of the conflicting subject matter. A terminal disclaimer has no effect in this situation since the basis for refusing more than one patent is priority of invention under 35 U.S.C. 102(f) or (g) and not an extension of monopoly.

Failure to comply with this requirement will result in a holding of abandonment of this application.

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claim 1 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 20 of copending Application No. 09/933866 in view of Pitt et al., U.S. Patent 5,717,934.

9. The claim of the copending application has an apparatus for operating a first server to receive backup service from a second server when the first server detects an operational fault, the apparatus is interpreted as the implementation of a method (See lines 1-2 of claim 20 of copending application). Also the copending application claim teaches sending a first indication from the first server to the second server when the first server detects an operational fault that will require it to shut down (See lines 3-4 of claim 20 of copending application). The copending application claim sends a second indication from the first server to the second server indicating the type of operational fault detected by the first server (See lines 5-6 of claim 20 of copending application). The copending application claim also receives a shutdown command at the first server from the second server if the second server can provide backup service to the first server (See lines 7-8 of claim 20 of copending application). Finally the copending application claim shuts down the first server (See line 9 of claim 20 of copending application). Claim 20 of the copending application does not recite the limitation "completing existing service requests to the first server". Pitt teaches a method using a proper sequence shutdown system for network components including file servers (See Col. 1, lines 20-26). The method does not permit the system to shut down until data transactions that are currently in progress are completed (See Col. 1, line 54 to Col. 2, line 6). This is interpreted as having the file server complete service requests that are currently being processed at the time of the event that requires the server to shut down. It would be obvious to one of ordinary skill in the art at the time of the invention to combine the shutting down method of a file server in a network of Pitt with the method

of transferring control from one file server to another of the copending application. This would have been obvious to one of ordinary skill in the art at the time of the invention to do because the a proper shut down of the server is required to prevent data from being deleteriously affected and thus system reliability maintained (See Pitt, Col. 1, lines 62-65).

This is a provisional obviousness-type double patenting rejection.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 4, 8, and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

12. Claim 4 recites the limitation "the status" in line 1 and 2. There is insufficient antecedent basis for this limitation in the claim.

13. Claim 8 recites the limitation "the operational status" in line 2. There is insufficient antecedent basis for this limitation in the claim.

14. Claim 15 recites the limitation "the status" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

15. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

16. Claim 19 is rejected under 35 U.S.C. 102(a) as being anticipated by Kleiman et al., PCT International Application Publication WO 00/11553, hereinafter referred to as "Kleiman".

17. Referring to claim 19, Kleiman discloses an apparatus for operating a first and second server (See Fig. 1). Kleiman discloses the first server sending state information messages, which is interpreted as sending a first indication from the first server to the second server, that contains a "STOPPED" state when the server is not operational, which is interpreted as the a fault detected in the first server that requires shut down (See page 7, lines 17-18, and 28-29). Also the first server provides a status report to the other servers when recovering from an error, this is interpreted as the first server sending a second indication that provides the type of operational fault requiring shut down (See page 2, lines 28-29). Kleiman also teaches the second server sending a "TAKEOVER" state message to the first server; this is interpreted as the first server receiving a shutdown command from the second server (See page 7, lines 14-15 and 28-29). Finally Kleiman discloses "REBOOTING", or shutting down the first server (See page 7, lines 20-21).

Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

19. Claim 1-18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kleiman in view of Pitt et al., U.S. Patent 5,717,934, hereinafter referred to as "Pitt".

20. Referring to claim 1, Kleiman discloses an apparatus for operating a first and second server (See Fig. 1). Kleiman discloses the first server sending state information messages, which is interpreted as sending a first indication from the first server to the second server, that contains a "STOPPED" state when the server is not operational, which is interpreted as the a fault detected in the first server that requires shut down (See page 7, lines 17-18, and 28-29). Also the first server provides a status report to the other servers when recovering from an error, this is interpreted as the first server sending a second indication that provides the type of operational fault requiring shut down (See page 2, lines 28-29). Kleiman also teaches the second server sending a "TAKEOVER" state message to the first server; this is interpreted as the first server receiving a shutdown command from the second server (See page 7, lines 14-15 and

28-29). Finally Kleiman discloses "REBOOTING", or shutting down the first server (See page 7, lines 20-21). Kleiman does not teach letting the first server complete existing server requests, however Kleiman does disclose the desire to provide a reliable takeover among a plurality of file servers (See page 1, lines 30-31). Pitt teaches a method using a proper sequence shutdown system for network components including file servers (See Col. 1, lines 20-26). The method does not permit the system to shut down until data transactions that are currently in progress are completed (See Col. 1, line 54 to Col. 2, line 6). This is interpreted as having the file server complete service requests that are currently being processed at the time of the event that requires the server to shut down. It would be obvious to one of ordinary skill in the art at the time of the invention to combine the shutting down method of a file server in a network of Pitt with the method of transferring control from one file server to another of Kleiman. This would have been obvious to one of ordinary skill in the art at the time of the invention to do because the a proper shut down of the server is required to prevent data from being deleteriously affected and thus system reliability maintained (See Pitt, Col. 1, lines 62-65).

21. Referring to claim 2, Kleiman and Pitt teach all the limitations (See rejection of claim 1) including sending periodically sending a request from the second server to the first server to stay shut down after it has already shut down. Kleiman discloses the file servers periodically sending state information messages and one of the states including a "TAKEOVER" state that signifies that the server has control of the mass storage

devices normally assigned to the shut down server (See page 7, lines 14-15 and lines 28-29). This is interpreted as the second server using the takeover command to shut down a server and once it has shut down maintaining the message to keep the server shut down.

22. Referring to claim 3, Kleiman and Pitt teach all the limitations (See rejection of claim 2) including rebooting the first server detected fault has been fixed. Kleiman discloses a rebooting state and the server recovering from the service interruption (See page 7, lines 20-21). This is interpreted as rebooting the server after the fault has been fixed.

23. Referring to claim 4, Kleiman and Pitt teach all the limitations (See rejection of claim 1) including detecting any operational fault prior to sending the first indication to the second server in the event a fault as occurred. Kleiman discloses a "STOPPED" state that indicates a server is not operational and sending state messages periodically to the other servers (See page 7, lines 17-18 and lines 28-29). This is interpreted as detecting a fault before sending a first indication to the second server.

24. Referring to claim 5, Kleiman and Pitt disclose all the limitations (See rejection of claim 1) including allowing the first server to complete certain functions at the time of the operational fault and before shut down. Pitt teaches a method using a proper sequence shutdown system for network components including file servers (See Col. 1, lines 20-

26). The method does not permit the system to shut down until data transactions that are currently in progress are completed (See Col. 1, line 54 to Col. 2, line 6). This is interpreted as having the file server complete service requests or certain functions that are currently being processed at the time of the event that requires the server to shut down.

25. Referring to claim 6, Kleiman and Pitt teach all the limitations (See rejection of claim 5) including sending periodically sending a request from the second server to the first server to stay shut down after it has already shut down. Kleiman discloses the file servers periodically sending state information messages and one of the states including a "TAKEOVER" state that signifies that the server has control of the mass storage devices normally assigned to the shut down server (See page 7, lines 14-15 and lines 28-29). This is interpreted as the second server using the takeover command to shut down a server and once it has shut down maintaining the message to keep the server shut down.

26. Referring to claim 7, Kleiman discloses method for operating a first and second server (See Fig. 1). Kleiman discloses the first server sending state information messages, which is interpreted as receiving a first request from the first server to the second server, that contains a "STOPPED" state when the server is not operational, which is interpreted as the a fault detected in the first server that requires shut down (See page 7, lines 17-18, and 28-29). Finally Kleiman discloses "REBOOTING", or

shutting down the first server (See page 7, lines 20-21). Kleiman also teaches the second server sending a "TAKEOVER" state message to the first server; this is interpreted as the second server taking over the functions of the first server (See page 7, lines 14-15 and 28-29). Kleiman does not teach letting the first server certain functions that were being processed at the time of the fault but before the shutdown, however Kleiman does disclose the desire to provide a reliable takeover among a plurality of file servers (See page 1, lines 30-31). Pitt teaches a method using a proper sequence shutdown system for network components including file servers (See Col. 1, lines 20-26). The method does not permit the system to shut down until data transactions that are currently in progress are completed (See Col. 1, line 54 to Col. 2, line 6). This is interpreted as having the file server complete service requests, or certain functions, that are currently being processed at the time of the event that requires the server to shut down. It would be obvious to one of ordinary skill in the art at the time of the invention to combine the shutting down method of a file server in a network of Pitt with the method of transferring control from one file server to another of Kleiman. This would have been obvious to one of ordinary skill in the art at the time of the invention to do because the a proper shut down of the server is required to prevent data from being deleteriously affected and thus system reliability maintained (See Pitt, Col. 1, lines 62-65).

27. Referring to claim 8, Kleiman and Pitt teach all the limitations (See rejection of claim 7) including detecting any operational fault prior to sending the first request to the

second server in the event a fault as occurred. Kleiman discloses a "STOPPED" state that indicates a server is not operational and sending state messages periodically to the other servers (See page 7, lines 17-18 and lines 28-29). This is interpreted as detecting a fault before sending a first request to the second server for initiating the second server to takeover.

28. Referring to claim 9, Kleiman and Pitt teach all the limitations (See rejection of claim 8) including determining if the second server can provide backup service for a first server and requesting the first server to shut down if the second server can provide backup service. Kleiman discloses a file server being able to disable a takeover of second server if there is any compatibility mismatch between the two; this is interpreted as the determining if a second server can provide backup service (See page 11, line 31 to page 12, line 2). Kleiman also teaches the second server sending a "TAKEOVER" state message to the first server; this is interpreted as the second server taking over the functions of the first server and having the second server shut down (See page 7, lines 14-15 and 28-29).

29. Referring to claim 10, Kleiman and Pitt teach all the limitations (See rejection of claim 9) including the first server sending an indication to the second server indicating the type of fault detected. Kleiman discloses the first server providing a status report to the other servers when recovering from an error, this is interpreted as the first server

sending a second indication that provides the type of operational fault requiring shut down (See page 2, lines 28-29).

30. Referring to claim 11, Kleiman and Pitt teach all the limitations (See rejection of claim 10) including sending periodically sending a request from the second server to the first server to stay shut down after it has already shut down. Kleiman discloses the file servers periodically sending state information messages and one of the states including a "TAKEOVER" state that signifies that the server has control of the mass storage devices normally assigned to the shut down server (See page 7, lines 14-15 and lines 28-29). This is interpreted as the second server using the takeover command to shut down a server and once it has shut down maintaining the message to keep the server shut down.

31. Referring to claim 12, Kleiman and Pitt teach all the limitations (See rejection of claim 11) including rebooting the first server detected fault has been fixed. Kleiman discloses a rebooting state and the server recovering from the service interruption (See page 7, lines 20-21). This is interpreted as rebooting the server after the fault has been fixed.

32. Referring to claim 13, Kleiman discloses operating a cluster with a first and second server (See Fig. 1). Kleiman discloses the first server sending state information messages, which is interpreted as sending a first indication from the first server to the

second server, that contains a "STOPPED" state when the server is not operational, which is interpreted as the a fault detected in the first server that requires shut down (See page 7, lines 17-18, and 28-29). Kleiman also teaches the second server sending a "TAKEOVER" state message to the first server; this is interpreted as the first server receiving a second indication for shutdown from the second server (See page 7, lines 14-15 and 28-29). Finally Kleiman discloses "REBOOTING", or shutting down the first server (See page 7, lines 20-21). Kleiman does not teach letting the first server complete server requests that were being processed when the second indication was received but before the second server takes over, however Kleiman does disclose the desire to provide a reliable takeover among a plurality of file servers (See page 1, lines 30-31). Pitt teaches a method using a proper sequence shutdown system for network components including file servers (See Col. 1, lines 20-26). The method does not permit the system to shut down until data transactions that are currently in progress are completed (See Col. 1, line 54 to Col. 2, line 6). This is interpreted as having the file server complete service requests that are currently being processed at the time of the event that requires the server to shut down. It would be obvious to one of ordinary skill in the art at the time of the invention to combine the proper shut down a file server in a network of Pitt with the operation a cluster that allows the transfer of control from one file server to another of Kleiman. This would have been obvious to one of ordinary skill in the art at the time of the invention to do because the a proper shut down of the server is required to prevent data from being deleteriously affected and thus system reliability maintained (See Pitt, Col. 1, lines 62-65).

33. Referring to claim 14, Kleiman discloses operating a cluster with a first and second server (See Fig. 1). Kleiman discloses the first server sending state information messages, which is interpreted as sending a fault signal from the first server to the second server, that contains a "STOPPED" state when the server is not operational, which is interpreted as the a fault detected in the first server that requires shut down (See page 7, lines 17-18, and 28-29). Kleiman also teaches the second server sending a "TAKEOVER" state message to the first server; this is interpreted as the first server's operations being taken over by the second server (See page 7, lines 14-15 and 28-29). Kleiman does not teach letting the first server complete server requests that were being processed when the second indication was received but before the second server takes over, however Kleiman does disclose the desire to provide a reliable takeover among a plurality of file servers (See page 1, lines 30-31). Pitt teaches a method using a proper sequence shutdown system for network components including file servers (See Col. 1, lines 20-26). The method does not permit the system to shut down until data transactions that are currently in progress are completed (See Col. 1, line 54 to Col. 2, line 6). This is interpreted as having the file server complete service requests that are currently being processed at the time of the event that requires the server to shut down. It would be obvious to one of ordinary skill in the art at the time of the invention to combine the proper shut down a file server in a network of Pitt with the operation a cluster that allows the transfer of control from one file server to another of Kleiman. This would have been obvious to one of ordinary skill in the art at the time of the

invention to do because the a proper shut down of the server is required to prevent data from being deleteriously affected and thus system reliability maintained (See Pitt, Col. 1, lines 62-65).

34. Referring to claim 15, Kleiman and Pitt disclose all the limitations (See rejection of claim 14) including the first server status of requests sent to the second server to be stored in memory in the event the second server takes over operation of the first server. Kleiman teaches the servers maintain states in persistent memory and using shared resources as part of the redundant communication paths (See page 2, lines 18-26). This is interpreted as the first server sending status of requests to the second server for storage in the event the second server needs to take over.

35. Referring to claim 16, Kleiman and Pitt teach all the limitations (See rejection of claim 15) including the second server taking over operation and sending periodic requests for first server to stay dead. Kleiman discloses the file servers periodically sending state information messages and one of the states including a "TAKEOVER" state that signifies that the server has control of the mass storage devices normally assigned to the shut down server (See page 7, lines 14-15 and lines 28-29). This is interpreted as the second server using the takeover command to shut down a server and once it has shut down maintaining the message to keep the server dead.

36. Referring to claim 17, Kleiman and Pitt teach all the limitations (See rejection of claim 16) including the servers being file servers (See Kleiman, page 2, lines 8-9).

37. Referring to claim 18, Kleiman discloses operating a cluster with a first and second server (See Fig. 1) that includes memory of containing running executable instructions. Kleiman discloses the first server sending state information messages, which is interpreted as sending a fault signal from the first server to the second server, that contains a "STOPPED" state when the server is not operational, which is interpreted as the a fault detected in the first server that requires shut down (See page 7, lines 17-18, and 28-29). Kleiman discloses a file server being able to disable a takeover of second server if there is any compatibility mismatch between the two; this is interpreted as the determining if a second server can provide backup service (See page 11, line 31 to page 12, line 2). Kleiman also teaches the second server sending a "TAKEOVER" state message to the first server; this is interpreted as first server shutting down if the second server can provide backup service (See page 7, lines 14-15 and 28-29). Finally Kleiman discloses "REBOOTING", or shutting down the first server (See page 7, lines 20-21). Kleiman does not teach letting the first server complete server requests that were being processed when the second indication was received but before the second server takes over, however Kleiman does disclose the desire to provide a reliable takeover among a plurality of file servers (See page 1, lines 30-31). Pitt teaches a method using a proper sequence shutdown system for network components including file servers (See Col. 1, lines 20-26). The method does not

permit the system to shut down until data transactions that are currently in progress are completed (See Col. 1, line 54 to Col. 2, line 6). This is interpreted as having the file server complete service requests that are currently being processed at the time of the event that requires the server to shut down. It would be obvious to one of ordinary skill in the art at the time of the invention to combine the shutting down method of a file server in a network of Pitt with the method of transferring control from one file server to another of Kleiman. This would have been obvious to one of ordinary skill in the art at the time of the invention to do because the a proper shut down of the server is required to prevent data from being deleteriously affected and thus system reliability maintained (See Pitt, Col. 1, lines 62-65).

38. Referring to claim 20, Kleiman discloses an apparatus for operating a cluster with a first and second server (See Fig. 1). Kleiman discloses the first server sending state information messages, which is interpreted as sending a first request from the first server to the second server, that contains a "STOPPED" state when the server is not operational, which is interpreted as the a fault detected in the first server that requires shut down (See page 7, lines 17-18, and 28-29). Kleiman also teaches the second server sending a "TAKEOVER" state message to the first server; this is interpreted as the first server receiving a second indication for shutdown from the second server (See page 7, lines 14-15 and 28-29). Finally Kleiman discloses "REBOOTING", or shutting down the first server (See page 7, lines 20-21). Kleiman does not teach letting the first server complete server requests that were being processed when the second indication

was received but before the second server takes over, however Kleiman does disclose the desire to provide a reliable takeover among a plurality of file servers (See page 1, lines 30-31). Pitt teaches a method using a proper sequence shutdown system for network components including file servers (See Col. 1, lines 20-26). The method does not permit the system to shut down until data transactions that are currently in progress are completed (See Col. 1, line 54 to Col. 2, line 6). This is interpreted as having the file server complete service requests that are currently being processed at the time of the event that requires the server to shut down. It would be obvious to one of ordinary skill in the art at the time of the invention to combine the proper shut down a file server in a network of Pitt with the apparatus for the operation a cluster that allows the transfer of control from one file server to another of Kleiman. This would have been obvious to one of ordinary skill in the art at the time of the invention to do because the a proper shut down of the server is required to prevent data from being deleteriously affected and thus system reliability maintained (See Pitt, Col. 1, lines 62-65).

Conclusion

39. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following are examples of other failover systems.

U.S. Patent 5,812,748 to Ohran et al.

U.S. Patent 5,812,751 to Ekrot et al.

U.S. Patent 5,987,621 to Dusolt et al.

U.S. Patent 6,560,617 to Winger et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Manoskey whose telephone number is (703) 308-5466. The examiner can normally be reached on Mon.-Fri. (8am to 4:30pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (703) 305-9713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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April 20, 2004

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